REMARKS

Claims 1-12 were pending prior to filing this response. Claims 1 and 3-10 are being amended. Claim 2 is being canceled. Therefore, claims 1 and 3-12 remain for consideration.

Claims 1 and 2 are objected to for not reciting all elements in a single sentence. Claim 2 is being canceled, and claim 1 is being amended to recite all elements in a single sentence. Accordingly, it is respectfully submitted that the objection to the claims is now overcome.

Claims 3, 8 and 10 are rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Claims 3, 5, 8 and 10 are being amended to remove the objected to term "preferably". It is therefore respectfully submitted that the 35 U.S.C. § 112, second paragraph rejection of the claims is now overcome.

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ban et al. (U.S. Pat. No. 4,787,749). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims. Claim 1 is being amended herein to include the limitations of claim 2.

Ban et al. is a device for measuring a thin film 41 which includes a sensor 1 (spectroscope unit). Sensor 1 includes a spectroscope 1b which divides light from a light source 1a into components of different wavelength. The sensor further includes a photoelectric converting element 1c which receives light reflected by film 41. A computer 5 is provided for calculating the film thickness (Figure 3b, abstract, col. 2, lines 3-23, col. 4, line 37 to col. 5, line 14).

The subject matter of amended claim 1 is different over Ban et al. in that

amended claim 1 recites that the plurality of senders and the plurality of receivers are intermixedly arranged at the sensor. In Ban et al., the spectroscope 1b being the sender and the converting element 1c being the receiver are arranged separately (as well as the related light guides 3a and 3b, respectively). Since only one sender and one receiver is provided there can be no intermixing.

Accordingly, in Ban et al., no groupwise collection of senders and receivers is possible in which each group includes senders as well as adjacent receivers and in which each group has an associated light source and a computer. To this end several light sources and computers would have to be present with Ban et al., which is not the case. Thus novelty over Ban et al. is established.

In sum, for an anticipation rejection to be appropriate, each and every element or limitation in a rejected claim must be disclosed in a single prior art reference used in the claim rejection. Because Ban et al. does not teach or suggest an apparatus for the continuous measurement of the thickness of a coating layer of a workpiece moved relative to the apparatus, wherein the senders and the receivers at the sensor are arranged in intermixed condition with one another, and wherein the senders and receivers lie next to one another and are collectively positioned in groupwise fashion, each group having associated with it its own source of measuring beams and having associated with it its own detector for the beams reaching the receivers, and each group having associated with it its own computer for forming a measuring signal, it cannot be maintained that Ban et al. anticipates amended claim 1. Moreover, because claim 3 depends from and thereby incorporates the limitations of claim 1, claim 3 is not anticipated by Ban et al. for at least the reasons set forth for claim 1.

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ban et al. (U.S. Pat. No. 4,787,749) as applied to claim 1, and in view of Yamada (U.S. Pat. No. 5,635,973). The rejection is traversed and

reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

The Examiner cites Yamada for showing an air suction nozzle 52 provided in the vicinity of an image sensor 24 to effectively clean the contacting surface of an image sensor 24. However, it has already been demonstrated above that Ban et al. contains insufficient teaching to anticipate claim 1 from which rejected claim 4 depends. Because claim 4 depends from and thereby incorporates the limitations of claim 1, it therefore follows that Ban et al. also contains insufficient teaching as a primary reference when taken either alone or in combination with the teachings of Yamada to render obvious claim 4.

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ban et al. (U.S. Pat. No. 4,787,749) as applied to claim 1, and in view of Enomoto (JP 09259217 A). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

The Examiner cites Enomoto for discussing an air nozzle 12 having its tip directed to a sensor surface 11a of a code reader to clean the surface. However, it has already been demonstrated above that Ban et al. contains insufficient teaching to anticipate claim 1 from which rejected claim 4 depends. Because claim 4 depends from and thereby incorporates the limitations of claim 1, it therefore follows that Ban et al. also contains insufficient teaching as a primary reference when taken either alone or in combination with the teachings of Enomoto to render obvious claim 4.

Claims 5 and 7-10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ban et al. (U.S. Pat. No. 4,787,749) as applied to claim 2, and in view of Fukuda et al. (U.S. Pat. No. 6,431,769), and further in view of Enomoto (JP 09259217 A). (Claim 1 is being amended herein to include the limitations of

now canceled claim 2.) The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

With respect to claim 5, the Examiner believes that Fukuda et al. shows a protective cover attached to a coating film thickness sensor. However, the cover 75 merely opens to completely expose the sensor when the sensor is in use, and closes to completely cover and thereby protect the sensor when not in use. There is no teaching or suggestion in Fukuda et al. with regard to a cover provided for limiting the measuring width of the sensor when in use, as is recited in claim 5 of the present application. As shown in Fig. 2 of the present application, a cover 35 has an opening 36 for limiting the measuring width of the sensor.

With respect to claim 7, the Examiner believes that Enomoto discloses an air nozzle equivalent to a cleaning channel running over the effective sensor surface. However, the air nozzle 12 of Enomoto appears to be directed only over the center of sensor surface 11a as shown in Fig. 3. Moreover, the Examiner believes that the cover of Fukuda in the apparatus of Ban et al. would be penetrated in the region of the senders and the receivers. However, the cover 75 of Fukuda et al. as shown in Fig. 10 appears to be solid so as to either completely expose a sensor when open or completely cover a sensor when closed. Therefore, the cover 75 of Fukuda could not be structurally used in Ban et al. so as to be penetrated in the region of the senders and receivers. Nor is there any teaching in Ban et al. and Fukuda when taken either alone or in combination to arrive at such a construction as is recited in claim 7 of the present application.

With respect to claim 8, the Examiner admits that the fiber probe in Ban et al. has a diameter of 2000 microns – well outside the range of 20-200 microns as is recited in claim 8 of the present application. The Examiner does not provide any support for his assertion that changing the fiber diameter on such a large scale

could be accomplished through routine experimentation.

In any event, it has already been demonstrated above that Ban et al. contains insufficient teaching to anticipate claim 1 from which rejected claims 5 and 7-10 each ultimately depend. Because claims 5 and 7-10 each ultimately depend from and thereby incorporate the limitations of claim 1, it therefore follows that Ban et al. also contains insufficient teaching as a primary reference when taken either alone or in combination with the teachings of Fukuda et al. and Enomoto to render obvious claims 5 and 7-10.

Claim 6 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ban et al. (U.S. Pat. No. 4,787,749) in view of Fukuda et al. (U.S. Pat. No. 6,431,769) and Enomoto (JP 09259217 A) as applied to claim 2, and further in view of Adams (U.S. Pat. No. 6,019,504). (Claim 1 is being amended herein to include the limitations of now canceled claim 2.) The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

The Examiner cites Adams for discussing the use of laser/infrared beams for surface examination. However, it has already been demonstrated above that Ban et al. contains insufficient teaching to anticipate claim 1 from which rejected claim 6 ultimately depends. Because claim 6 ultimately depends from and thereby incorporates the limitations of claim 1, it therefore follows that Ban et al. also contains insufficient teaching as a primary reference when taken either alone or in combination with the teachings of Fukuda et al., Enomoto and Adams to render obvious claim 6.

Claims 11 and 12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ban et al. (U.S. Pat. No. 4,787,749) as applied to claim 1, and in view of Steiger (EP 1112801 A2). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the

claims.

The Examiner cites Steiger for discussing a can welding machine with a seam covering arrangement. The Examiner believes that it would have been obvious to substitute the measuring apparatus of Steiger with the measuring apparatus of Ban et al. in the can welding machine of Steiger. It has already been demonstrated above, however, that Ban et al. contains insufficient teaching to anticipate claim 1 from which rejected claims 11 and 12 each depend. Because claims 11 and 12 each depend from and thereby incorporate the limitations of claim 1, it therefore follows that Ban et al. also contains insufficient teaching as a primary reference when taken either alone or in combination with the teachings of Steiger to render obvious claims 11 and 12.

In view of the foregoing, it is respectfully submitted that amended claims 1 and 3-12 are in condition for allowance. All issues raised by the Examiner having been addressed, an early action to that effect is earnestly solicited.

No fees or deficiencies in fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Respectfully submitted,

By /Daniel G. Mackas/
Daniel G. Mackas
Registration No. 38,541
Attorney for Applicants

Customer No. 35301
McCORMICK, PAULDING & HUBER LLP
CityPlace II, 185 Asylum Street
Hartford, CT 06103-3410
(860) 549-5290